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IN THE CLAIMS

1. (Previously Presented) A method of constructing a multi-type feature vector comprising the steps of:

obtaining a user's communication interest as represented by at least one of: a user request for a content update or a user subscription to a specific data item or to a set of proximal data sources;

obtaining network attributes;

obtaining application attributes; and

forming a feature vector based on the user's communication interest, network attributes, and application attributes.

2. (Currently Amended) A method of clustering a multi-type vector space comprising the steps of:

obtaining network attributes from a network having a plurality of nodes;

obtaining application attributes of an application;

obtaining user's communication interest as represented by at least one of: a user request for a content update or a user subscription to a specific data item or to a set of proximal data sources;

forming a plurality of feature vectors, one for each of the plurality of nodes, where each of the plurality of feature vectors is based on the user's communication interest, network attributes, and application attributes; and

clustering the plurality of nodes based on the network attributes, the application attributes, and the user's communication interest plurality of feature vectors.

3. (Previously Presented) The method of claim 2 such that clustering is performed by a fusion method in which one or more of said plurality of nodes are clustered in each attribute space on subspace classifiers.

4. (Previously Presented) The method of claim 2 such that clustering is performed

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by a nested method in which one or more of said plurality of nodes are initially clustered based on a sub-set of attributes and then re-clustered by iteratively considering additional attributes.

5. (Previously Presented) The method of claim 2, further comprising forming network delay maps and forward capacity maps from the network attributes, and such that clustering is based on the network delay maps and on the forward capacity maps.

6. (Cancelled)

7. (Original) The method of claim 2, in which obtaining application attributes includes obtaining information regarding collaborative usage of the application.

8. (Original) The method of claim 2, in which obtaining network attributes includes obtaining network path loss information, and such that clustering is based on the path loss information.

9. (Original) The method of claim 2, such that clustering is based on bandwidth constraints.

10. (Original) The method of claim 2, such that clustering is based on a weighted distance function modeled from normalized attribute subspace metrics.

11. (Withdrawn) A method of clustering network nodes comprising the steps of:
forming network attribute maps of network constraints;
forming a communication interest space map of application constraints;
extracting feature vectors from the communication interest space map;
extracting network feature vectors from the network attribute maps;
obtaining network quality of service constraints; and
forming a list of labeled nodes based on network and application constraints.

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12. (Withdrawn) The method of claim 11, wherein forming network attribute maps includes the steps of:

forming delay maps from measured network delays;

forming a path loss map based on network path losses;

forming a bandwidth map based on the node bandwidths; and

forming a forwarding capacity map based on the forwarding capacity at the network nodes.

13. (Withdrawn) The method of claim 11, further including clustering based on the feature vectors and on network quality of service constraints.

14. – 20. (Cancelled)